

PATENT CLAIMS

1. A locking device for vehicles, in particular for aircraft, having an actively driven drive element (5) with an input drive shaft (6) and an output drive shaft (10) connected directly or indirectly to it,

characterized

in that the input drive shaft (6) or the output drive shaft (10) has at least one associated permanent magnet (11) which interacts with at least one further external stationary element (12), in particular a permanent magnet (12).

2. A locking device for vehicles, in particular for aircraft, having an actively driven drive element (5) with an input drive shaft (6) and an output drive shaft (10) connected directly or indirectly to it,

characterized

in that the input drive shaft (6) or the output drive shaft (10) has at least one associated element (11), in particular a permanent magnet (11), which interacts with at least one further external stationary permanent magnet (12).

3. The locking device as claimed in claim 1 or 2, characterized in that the electrically powered drive element (5) is arranged in a housing (1), and the at least one permanent magnet (11) is provided within the housing (1) on the input drive shaft (6) or on the output drive shaft (10) and interacts with the further permanent magnet (12), which

is fixed on the cylinder inner wall (8) within the housing (1).

4. The locking device as claimed in claim 3, characterized in that the outer permanent magnet (12) is fixed internally on the cylinder wall (8), and a gap (S) is formed between the two permanent magnets (11, 12).

5. The locking device as claimed in at least one of claims 1 to 4, characterized in that the housing (1) is subdivided into two parts (2, 3), the drive element (5) is provided in the first part (2), and the permanent magnet (11, 12) is provided in the second part (3).

6. The locking device as claimed in at least one of claims 1 to 5, characterized in that the input drive shaft (6) or the output drive shaft (10) has at least one associated sensor element (13) for limit position determination.

7. The locking device as claimed in at least one of claims 1 to 6, characterized in that a transmission element (9), in particular an epicyclic transmission, is connected between the input drive shaft (6) and the output drive shaft (10).

8. The locking device as claimed in at least one of claims 1 to 7, characterized in that the input drive shaft (6) or the outer permanent magnet (12) of the output drive shaft (10) holds the input drive shafts (6) or the output drive shaft (10) in a definable and adjustable rest position,

in particular in a safe position or moves them back to this safe position, by interaction with the permanent magnet (11) arranged on it.

9. The locking device as claimed in at least one of claims 1 to 8, characterized in that, in the event of a power failure, the outer permanent magnet (12) acts on the inner permanent magnet (11) and rotates the input drive shaft (6) or the output drive shaft (10) to a variable and selectable safe position or rest position.

10. The locking device as claimed in at least one of claims 1 to 9, characterized in that, particularly in the event of a power failure or deactivation of the drive element (5), the two permanent magnets (11, 12) automatically reset the input drive shaft (6) or the output drive shaft (10) to its selectable initial or safe position.

11. The locking device as claimed in at least one of claims 1 to 10, characterized in that the drive element (5) is in the form of an electric motor, a pneumatic drive or a hydraulic drive.

12. The locking device as claimed in at least one of claims 1 to 11, characterized in that the outer permanent magnet (12) is positioned upstream or downstream of the drive element (5), or is contained in it.

13. The locking device as claimed in at least one of claims 1 to 12, characterized in that the inner and the outer permanent magnet (11, 12) are connected downstream from the

transmission element (9), in the area of the output drive shaft (10).